

REFERENCES, ACRONYMS AND ABBREVIATIONS, GLOSSARY, AND INDEX

CHAPTER 6

6.0 References, Acronyms and Abbreviations, Glossary, and Index

6.1 References

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6.2 Acronyms and Abbreviations

°F	degrees Fahrenheit
µg/L	microgram per liter
µg/m ³	microgram per cubic meter
AAQS	Ambient Air Quality Standards
AATA	AATA International, Inc.
ABA	acid-base accounting
ACHP	Advisory Council on Historic Preservation
afy	acre-feet per year
AGP	acid generation potential
AIRFA	American Indian Religious Freedom Act
amsl	above mean sea level
ANP	acid neutralization potential
APE	area of potential effect
ARD	acid rock drainage
ARPA	Archaeological Resources Protection Act
BAPC	Bureau of Air Pollution Control
BGMI	Barrick Goldstrike Mines Inc.
BLM	Bureau of Land Management
BMP	Best Management Practice
BMRR	Bureau of Mining Regulation and Reclamation
BVMP	Boulder Valley Monitoring Plan
CAA	Federal Clean Air Act
CAAA	Federal Clean Air Act Amendments
CaCO ₃	Calcium carbonate
CAT	Computerized Axial Tomography
CDP	Census Designated Place

CEQ	Council on Environmental Quality
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CESA	Cumulative Effects Study Area
CFR	CFR
cfs	cubic feet per second
CH ₃ Hg ⁺	methyl mercury
CIA	Cumulative Impact Analysis of Dewatering and Water Management Operations for the Betze Project, South Operations Area Project Amendment, and Leeville Project
CIL	carbon-in-leach
cm	centimeter
cm/sec	centimeter per second
CN	cyanide
CO	carbon monoxide
CO ₂	carbon dioxide
COPC	constituent of potential concern
CWA	Clean Water Act
DRI	Desert Research Institute
EA	Environmental Assessment
EC	electrical conductivity
ECEDA	Elko County Economic Diversification Authority
EIS	Environmental Impact Statement
ELLCO	Elko Land and Livestock Company
EO	Executive Order
EMA	Environmental Management Associates, Inc.
ERA	ecological risk assessment
ESA	Endangered Species Act
ET	Evapotranspiration

FLPMA	Federal Land Policy and Management Act
FR	Federal Register
FSA	Fire Science Academy
FY	fiscal year
GBC	Great Basin College
g/km ² -yr	grams per square kilometer per year
g/m ²	grams per square meter
GHG	Greenhouse Gas
gpm	gallons per minute
HAP	Hazardous Air Pollutant
HDPE	high density polyethylene
Hg	mercury
HQ	Hazard Quotient
I-80	Interstate 80
ICMC	International Cyanide Management Code
ICU	Intensive Care Unit
IM	Instructional Memorandum
INCO	International Nickel Company
JBR	JBR Environmental Consultants, Inc.
Kg/t CaCO ₃	kilograms per ton of calcium carbonate
KOP	Key Observation Point
kV	Kilovolt
km	Kilometer
LCT	Lahontan cutthroat trout
LLDPE	linear low density polyethylene
m	meter
mg/L	milligrams per liter

MBTA	Migratory Bird Treaty Act
MCBMP	Maggie Creek Basin Monitoring Plan
mgd	million gallons per day
MOU	Memorandum of Understanding
MPR	Mountain Prairie Region
MRI	Magnetic Resonance Imaging
MSHA	Mine Safety and Health Administration
MUID	Map Unit Identification
NAAQS	National Ambient Air Quality Standards
NAC	Nevada Administrative Code
NAG	non-acid generating
NAGPRA	Native American Graves Protection and Repatriation Act
NDEP	Nevada Division of Environmental Protection
NDETR	Nevada Department of Employment, Training, Rehabilitation
NDOW	Nevada Department of Wildlife
NDWR	Nevada Division of Water Resources
NEPA	National Environmental Policy Act
Newmont	Newmont Mining Corporation
NHPA	NHPA of 1986
NMCP	Nevada Mercury Air Emissions Control Program
NNHP	Nevada Natural Heritage Program
NNP	net neutralization potential
NNSG	Northeastern Nevada Stewardship Group
NO ₂	nitrogen dioxide
NO _x	nitrogen oxides
NPS	National Park Service
NRCS	Natural Resources Conservation Service

NRHP	National Register of Historic Places
NRS	Nevada Revised Statute
NSHD	Nevada State Health Division
NSPS	New Source Performance Standards
NVMACT	Nevada Maximum Achievable Control Technology
NWR	National Wildlife Refuge
O ₃	Ozone
PA	Programmatic Agreement
PAG	potentially acid generating
PCPI	Per Capita Personal Income
PCS	Petroleum Contaminated Soil
PLS	Pure Live Seed
PM	particulate matter
PM ₁₀	particulate matter with an aerodynamic diameter of 10 microns or less
PM _{2.5}	particulate matter with an aerodynamic diameter of 2.5 microns or less
PMF	probable maximum flood
POO	Plan of Operations
ppm	parts per million
PSD	Prevention of Significant Deterioration
RCP	reinforced concrete pipe
RCRA	Resource Conservation and Recovery Act
REMSAD	Regional Modeling System for Aerosols and Deposition
RFFA	Reasonably Foreseeable Future Action
RIB	Rapid Infiltration Basin
RMP	Resource Management Plan
ROD	Record of Decision
ROM	Run of Mine

ROW	right-of-way
RSD	Recommended Salvage Depth
RTi	Riverside Technology inc.
RV	Recreational Vehicle
SARA	Superfund Amendments and Reauthorization Act
SEIS	Supplemental Environmental Impact Statement
SH	State Highway
SHPO	State Historic Preservation Office
SIP	State Implementation Plan
SO ₂	sulfur dioxide
SOAP	South Operations Area Project
SOAPA	South Operations Area Project Amendment
SPCC Plan	Spill Prevention, Control, and Countermeasures Plan
SR	State Route
SRK	SRK Consulting
SSURGO	Soil Survey Geographic Database
SU	standard units
SWCA	SWCA Environmental Consultants Inc.
SWPPP	Storm Water Pollution Prevention Plan
SWReGAP	Southwest Regional GAP
TCP	traditional cultural property
TDS	total dissolved solids
t/Kt	tons per kiloton
tpy	tons per year
TRI	toxic release inventory
TRV	toxicity reference values
USACE	United States Army Corps of Engineers

USC	United States Code
USDA	United States Department of Agriculture
USDOT	United States Department of Transportation
USEPA	United States Environmental Protection Agency
USFS	United States Forest Service
USFWS	United States Fish and Wildlife Service
USGS	U.S. Geological Survey
UWCHEP	Upper Willow Creek Habitat Enhancement Plan
VOC	Volatile Organic Compound
VRM	Visual Resource Management
WAD	weak acid dissociable
WAPT	Wildlife Action Plan Team
WEPP	Water Erosion Prediction Project
WNV	West Nile Virus
WMA	Wildlife Management Area

6.3 Glossary

Adverse Effect (under the NHPA)	An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the NRHP in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association.
Alluvial	Pertaining to material or processes associated with transportation or deposition of soil and rock by flowing water (e.g., streams and rivers).
Alluvium	Unconsolidated or poorly consolidated gravel, sands, and clays deposited by streams and rivers on riverbeds, floodplains, and alluvial fans.
Ambient	The environment as it exists at the point of measurement and against which changes or impacts are measured.
American Indian Religious	Act establishing national policy to protect and preserve for Native Americans their inherent right of freedom to believe, express, and exercise their traditional religions, including the rights of access to religious sites, use and possession of sacred objects, and freedom to worship through traditional ceremonies and rites.
Archaeological Resources	A federal law, passed in 1979 to protect archaeological resources on public and Indian lands.
Area of Potential Effects	Defined in Section 106 regulations as the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist.
Aquifer	A body of rock that is sufficiently permeable to conduct groundwater and to yield economically significant quantities of water to wells and springs.
Background Noise	Noise from all sources other than that from a particular source of interest (e.g., other than mining noise if mining noise were being investigated).
Bedrock	Any solid rock exposed at the surface or overlain by unconsolidated material.
BLM Sensitive Species	Previous Category 2 (C2) candidate species.
CFR	The compilation of federal regulations adopted by federal agencies through a rule-making process.
Carrying Capacity	The maximum population of an animal that an ecosystem can support without being degraded.

Cone of Depression	The depression of groundwater levels around a pumping well caused by the withdrawal of water.
Critical Habitat	Habitat that is present in minimum amounts and is the determining factor in the potential for population maintenance and growth.
Cultural Resources	Archaeological sites, architectural structures or features, traditional use areas, and Native American sacred sites or special use areas.
Cumulative Effects	The combined environmental impacts that accrue over time and space from a series of similar or related individual actions, contaminants, or projects. Although each action may seem to have a negligible impact, the combined effect can be significant. Included are activities of the past, present, and reasonably foreseeable future; synonymous with cumulative impacts.
Direct Impacts	Impacts that are caused by the action and occur at the same time and place (40 CFR 1508.7); synonymous with direct effects.
Discharge	The volume of water flowing past a point per unit time, commonly expressed as cubic feet per second, gallons per minute, or million gallons per day.
Disturbed Area	An area where natural vegetation and soils have been removed.
Dolomite	A mineral, calcium magnesium carbonate ($\text{CaMg}[\text{CO}_3]_2$), or a rock composed largely of dolomite.
Drainage	The natural channel through which water flows some time of the year; natural and artificial means for affecting discharge of water as by a system of surface and subsurface passages.
Drawdown	The lowering of the water level in a well as a result of withdrawal; the reduction in groundwater level at a point caused by the withdrawal of water from an aquifer.
Effect	An effect on one of the characteristics that may make a historic property eligible for inclusion in the NRHP.
Endangered Species	Any species in danger of extinction throughout all or a significant portion of its range. Plant or animal species identified by the Secretary of the Interior as endangered in accordance with the 1973 ESA.
Ephemeral Stream	A stream or portion of a stream that flows briefly in direct response to precipitation in the immediate vicinity and whose channel is at all times above the water table.
Erosion	The wearing away of soil and rock by weathering, mass wasting, and the action of streams, glaciers, waves, wind, and groundwater.
Executive Order 11593	Requires federal agencies to survey properties under their jurisdiction and nominate appropriate candidates to the NRHP.

Executive Order 13287 of 2003	Initiative affirming the federal government's leadership role in protecting historic properties. Among the goals of Preserve America are to promote partnerships for the use and rehabilitation of historic properties, and to assist in developing heritage tourism opportunities.
Exploration	The search for economic deposits of minerals, ore, and other materials through practices of geology, geochemistry, geophysics, drilling, and/or mapping.
Fault	A fracture in rock units along which there has been displacement.
Floodplain	That portion of a river valley, adjacent to the channel, that is built of sediments deposited during the present regimen of the stream and that is covered with water when the river overflows its banks at flood stages.
Fugitive Dust	Dust particles suspended randomly in the air from various sources including road travel, excavation, and rock loading operations.
Geochemistry	The study of the distribution and amounts of the chemical elements in minerals, ores, rocks, soils, water, and the atmosphere, and their circulation in nature on the basis of the properties of their atoms and ions.
Geotechnical	A branch of engineering concerned with the engineering design aspects of slope stability, settlement, earth pressures, bearing capacity, seepage control, and erosion.
Groundwater Recovery	An increase in groundwater levels such that the groundwater elevations rise above initial baseline groundwater elevations. Used to refer to an increase in water levels following drawdown.
Groundwater Table	The surface between the zone of saturation and the zone of aeration; that surface of a body of unconfined groundwater at which the pressure is equal to that of the atmosphere.
Habitat	A specific set of physical conditions that surround a single species, a group of species, or a large community. In wildlife management, the major components of habitat are considered to be food, water, cover, and living space.
Hazard Quotient	A comparison of an estimated chemical intake (dose) with a reference dose level below which adverse health effects are unlikely. The hazard quotient is expressed as the ratio of the estimated intake to the reference dose. The value is used to evaluate the potential for noncancer health effects, such as organ damage, from chemical exposures.
Heap Leaching	The process of recovering gold and other metals from low-grade ores by leaching ore that has been mined and placed on a specially prepared pad. A chemical solution is applied through low volume emitters, and the metal-bearing leachate solution percolates and is collected.

Historic Property	Defined by the NHPA as any property included in or eligible for the NRHP.
Hydraulic Conductivity	The capacity of a rock to transmit water. It is expressed as the volume of water at the existing kinematic viscosity that will move in unit time under a unit hydraulic gradient through a unit area measured at right angles to the direction of flow.
Hydrostratigraphic Unit	Grouping of stratified, mainly sedimentary rocks that have similar hydrologic properties.
Impact	A modification in the status of the environment brought about by the Proposed Action or an alternative.
Indirect Impacts	Impacts that are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable (40 CFR 1508.8); synonymous with indirect effects.
Infiltration	The movement of water or some other liquid into the soil or rock through pores or other openings.
Irretrievable	Applies primarily to the lost production of renewable natural resources during the life of the project.
Irreversible	Applies primarily to the use of nonrenewable resources, such as minerals, cultural resources, wetlands, or to those factors that are renewable only over long time spans, such as soil productivity. Irreversible also includes loss of future options.
Jurisdictional Wetland	A wetland area identified and delineated by specific technical criteria, field indicators, and other information for purposes of public agency jurisdiction. The public agencies that administer jurisdictional wetlands are the USACE, the USEPA, the USFWS, and the NRCS.
Key Observation Point	“One or a series of points on a travel route or at a use area or a potential use area, where the view of a management activity would be most revealing” (BLM 1986c). KOPs are commonly selected to represent the most sensitive viewpoints for a proposed management activity based on the number of people who would experience them or the frequency and duration of viewing.
Leachate	A solution obtained by leaching as in downward percolation of water through soil or waste.
Mineralization	The process by which a valuable mineral or minerals are introduced into a rock.
Mitigate, Mitigation	To cause to become less severe or harmful; actions to avoid, minimize, rectify, reduce or eliminate, and compensate for impacts to environmental resources.

Monitor	To systematically and repeatedly watch, observe, or measure environmental conditions in order to track changes.
National Environmental Policy Act	The National Environmental Policy Act (NEPA) of 1969; the national Policy charter for protecting the environment. NEPA establishes policy, sets goals, and provides means for carrying out the policy. Regulations from 40 CFR 1500-1508 implement the act.
National Historic Preservation	Act directing federal agencies to consider the effects of their programs and projects on properties listed on or eligible for the NRHP. If a proposed action might impact any archaeological, historical, or architectural resource, this act mandates consultation with the proper agencies.
National Pollutant Discharge Elimination System	A part of the Clean Water Act that requires point source dischargers to obtain permits. These permits are referred to as NPDES permits and are administered by the USEPA.
National Register of Historic Places	A register maintained by the NPS that lists districts, sites, buildings, structures, and objects significant in American history, architecture, archaeology, engineering and culture that meet criteria set forth in 36 CFR 60.
Native American Grave Protection and Repatriation Act of 1990	A federal law, passed in 1990 that provides for the return of certain sacred and ceremonial objects held by museums and other repositories to the Native American peoples from which they were originally acquired.
Native Species	Plants that originated in the area in which they are found (i.e., they naturally occur in that area).
Nevada Administrative Code	The text of the regulations implementing the laws passed by the Nevada legislature.
Nevada Revised Statutes	The text of laws passed by the Nevada legislature.
Ore	A deposit of rock from which a valuable mineral or minerals can be economically extracted.
Overburden	Material that must be removed to allow access to an orebody, particularly in a surface mining operation.
Paleozoic	The span of time between approximately 570 and 245 million years ago.
Particulate(s)	Minute, separate particles, such as dust or other air pollutants.
Perennial Stream	A stream or reach of a stream that flows throughout the year.
Physiographic Province	Region in which all parts have similar geologic structure and climate and whose landforms differ significantly from those of other regions.

Project Alternatives	Alternatives to the Proposed Action developed through the NEPA process.
Properties of Cultural and Religious Importance	A “property of cultural or religious importance” that is a historic property eligible for the NRHP and associated with the cultural practices of an Indian tribe or other cultural or ethnic community.
Raptor	A bird of prey (e.g., eagle, hawk, falcon, and owl).
Recovery (Groundwater)	An increase in groundwater levels such that the groundwater elevations rise above initial baseline groundwater elevations. Refers to an increase in water levels following drawdown.
Reserves	Identified resources of mineral-bearing rock from which the mineral can be extracted profitably with existing technology and under present economic conditions.
ROW	Strip of land or corridor over which a power line, access road, or maintenance road would pass.
Riparian	Situated on or pertaining to the bank of a river, stream, or other body of water. Riparian is normally used to refer to plants of all types that grow along streams, rivers, or at spring and seep sites.
Run-of-Mine Ore	Ore that is taken from a mine or pit directly to a mill for processing.
Runoff	That part of precipitation that appears in surface streams; precipitation that is not retained on the site where it falls and is not absorbed by the soil.
Sediment	Material suspended in or settling to the bottom of a liquid. Sediment input comes from natural sources, such as soil erosion and rock weathering, construction activities, or anthropogenic sources, such as forest or agricultural practices.
Sediment Load	The amount of sediment (sand, silt, and fine particles) carried by a stream or river.
Seismicity	The likelihood of an area being subject to earthquakes; the phenomenon of earth movements.
Sensitive Viewpoint	Similar to a KOP, but of lesser sensitivity due to infrequency of use, small numbers of viewers, or similar mitigating circumstances.
Species	A group of individuals of common ancestry that closely resemble each other structurally and physiologically, and in nature interbreed producing fertile offspring.
Stratigraphy	Form, arrangement, geographic distribution, chronological succession, classification, and relationships of rock strata.
Subsidence	Sinking or downward settling of the earth’s surface.

Tertiary	The span of time between 65 and 10 million years ago.
Threatened Species	Any species of plant or animal that is likely to become endangered within the foreseeable future throughout all or a significant portion of its range.
Total Dissolved Solids	The total amount of dissolved material, organic or inorganic, contained in a sample of water.
Total Suspended Solids	The amount of undissolved particles suspended in a sample of water.
Traditional Cultural Property	A site or resource that is eligible for inclusion in the NRHP because of its association with cultural practices or beliefs of a living community.
Transmissivity	The rate at which water of the prevailing kinematic viscosity is transmitted through a unit width of an aquifer under a unit hydraulic gradient; it equals the hydraulic conductivity multiplied by the aquifer thickness.
Visual Resource	<p>The composite of basic terrain, geologic features, water features, vegetation patterns, and land use effects that typify a land unit and influence the visual appeal the unit may have for viewers.</p> <p>A classification of landscapes according to the kinds of structures and changes that are acceptable to meet established visual goals (BLM).</p>
Water Table	The level in the saturated zone at which the pressure is equal to the atmospheric pressure.
Waters of the United States	A jurisdictional term from Section 404 of the Clean Water Act referring to water bodies such as lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds. The use, degradation, or destruction of these waters could affect interstate or foreign commerce.
Wetlands	Areas that are inundated by surface or groundwater with a frequency sufficient to support (and under normal circumstances do or would support) a prevalence of vegetation or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction.
Wind Rose	A graphical representation of wind direction and wind speed frequencies.

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